REMARKS

This amendment is responsive to the Office Action dated May 7, 2008. In the amendment, claims 1-15 remain pending in the application. Claims 1, 4, 7, 10, 12, 13, and 15 are currently amended. Support for these amendments may be found variously throughout the Specification, in particular, on page 9, lines 1-3 and page 15, lines 10-14. *Therefore, these amendments add no new matter.* Reconsideration and allowance of the pending claims are respectfully requested.

<u>Claims 1-15 have been rejected under 35 U.S.C. § 102(a) as being anticipated by U.S. Pub. No. 2002/0136137 A1 to Shishido et al ("Shishido").</u> This rejection is respectfully traversed.

Claim 1, as amended, now recites: *[a] recording apparatus, characterized by comprising:*

bit pattern determining means which determines a bit pattern of coupling bits to be inserted into predetermined positions of main data encoded by a predetermined recording/ encoding format, and determines said bit pattern of said coupling bits based on sub data to be recorded on a recording medium together with said main data;

coupling bits inserting means for inserting said coupling bits of said bit pattern determined by said bit pattern determining means into said predetermined positions of said encoded main data; and

recording means for recording information formed by inserting said coupling bits into said main data, on said recording medium,

wherein the bit pattern of the coupling bits is selected such that a digital sum value converges as near to zero as possible, and

wherein said coupling bits based on sub data are inserted only at positions which allow an optional selection of at least two bit patterns.

Shishido does not disclose or suggest these claimed features. Shishido discloses a "disk drive apparatus for recording and reproducing (reading) data into and from disks for which data is rewritable, such as compact discs rewritable (CD-RWs), and to disk formatting methods." (Shishido, para. [0002].) According to Shishido, a C1 encoder may generate and add four symbols of Reed-Solomon code to make 32 symbols after interleaving, add one control symbol (subdata) thereto, and achieves EFM modulation. (Shishido, para. [0165].) Further, "[a]t least two coupling

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bits are required to satisfy a restriction in which two "0's" or more are disposed between "1" and "1" even between symbols." (Shishido, para. [0176].)

Shishido also discloses "[o]ne frame is formed of a total of 588 bits, including: frame

synchronizing signal: 24 bits

sub coding: one symbol = 14 bits

digital audio data and its parity: 32 symbols = 32x14 bits

coupling bits between symbols: 3x34 = 102 bits." (Shishido, paras. [0184] – [0188].)

As disclosed by Shishido, "[t]his 14-bit sub code is taken out from each of 98 frames to form one sub-code block." (Shishido, para. [0191].) "The sub code is used, for example, for (1) searching for the beginning of a musical piece and for implementingf a program function in which musical pieces are played in an order specirfied in advance" and "(2) recording additiona information such as text information." (Shishido, paras. [0192] – [0194].)

Therefore, Shishido discloses that the one symbol sub code of 14 bits which follows the fram synchronization signal is used for recording additional information, and not that a "*bit pattern determining means which determines a bit pattern of coupling bits to be inserted into predetermined positions of main data encoded by a predetermined recording/ encoding format, and is able to determine said bit pattern of said coupling bits based on sub data to be recorded on a recording medium together with said main data*[.]" In fact, Shishido makes no mention at all of the "coupling bits between symbols" being inserted into predetermined positions of main data and the bit pattern of the coupling bits based on sub data to be recorded on a recording medium with the main data.

Additionally, Shishido fails to teach, disclose or suggest "*wherein the bit pattern of the coupling bits is selected such that a digital sum value converges as near to zero as possible*[.]"

And more, Shishido fails to teach, disclose or suggest "*wherein said coupling bits based on sub data are inserted only at positions which allow an optional selection of at least two bit patterns.*"

This last feature addresses a difficulty and offers advantages not in any way contemplated or suggested by Shishido. Purely by way of example, as explained in Applicant's Specification:

It has been described that the bit patterns of the coupling bits have optional selectivity. However, the EMF word changes its bit pattern in accordance with the contents of actual audio data. It can be considered that there is the case that only one bit pattern can

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be selected depending upon a combination of bit patterns of two forward and backward EFM frames, if the run length conditions are to be satisfied. Namely, there is a possibility that the optional selectivity of the bit patterns of the coupling bits is lost.

Therefore, for example, it is appropriate to use the coupling bits at the insertion position surely obtaining the optional selectivity capable of at least selecting two bit patterns, when data is to be recorded by using the coupling bits.

Study will therefore be made on the insertion position of the coupling bits surely obtaining the optional selectivity of the coupling bits in the CD format having been described above. (Substitute Specification, pg. 15, lines 1-17.)

Shishido thus clearly fails to teach, disclose, or suggest each and every feature recited in claim 1. For reasons similar to those provided regarding claim 1, Shishido also clearly fails to teach, disclose, or suggest each and every feature recited in independent claims 4, 7, 10, and 13. Dependent claims 2-3, 5-6, 8-9, 11-12, and 14-15 respectively incorporate the features recited in independent claims 1, 4, 7, 10, and 13, respectively, and are thus distinct for that reason as well as for their separately recited patentably distinct features.

Accordingly, Applicant respectfully requests reconsideration and withdrawal of the rejection of claims 1-15 as being anticipated by Shishido under 35 U.S.C. § 102(a). *Verdegaal Bros. v. Union Oil Co. of California*, 814 F.2d 628, 631, 2 USPQ2d 1051, 1053 (Fed. Cir. 1987) ("A claim is anticipated only if each and every element as set forth in the claim is found, either expressly or inherently described, in a single prior art reference."); *Richardson v. Suzuki Motor Co.*, 868 F.2d 1226, 1236, 9 USPQ2d 1913, 1920 (Fed. Cir. 1989) ("The identical invention must be shown in as complete detail as is contained in the ... claim."); *In re Bond*, 910 F.2d 831, 15 USPQ2d 1566 (Fed. Cir. 1990) (The elements must be arranged as required by the claim, but this is not an *ipsissimis verbis* test, i.e., identity of terminology is not required.).

CONCLUSION

In view of the foregoing arguments, all claims are believed to be in condition for allowance. If any further issues remain, the Examiner is invited to telephone the undersigned to resolve them.

This response is believed to be a complete response to the Office Action. However, Applicant reserve the right to set forth further arguments supporting the patentability of their claims, including the separate patentability of the dependent claims not explicitly addressed herein, in future papers. Further, for any instances in which the Examiner took Official Notice in the Office Action, Applicant expressly do not acquiesce to the taking of Official Notice, and respectfully request that the Examiner provide an affidavit to support the Official Notice taken in the next Office Action, as required by 37 C.F.R. § 1.104(d)(2) and MPEP § 2144.03.

Applicant believes no fee is due with this response. However, if a fee is due, please charge our Deposit Account No. 18-0013, under Order No. SON-2783 from which the undersigned is authorized to draw.

Dated: August 6, 2008

Respectfully submitted,

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